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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,182	10/23/2003	Chris D. Hyser	200205371-1	2604

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EXAMINER
KOEMPEL THOMAS, BEATRICE L

ART UNIT	PAPER NUMBER
2196	

DATE MAILED: 12/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	10/693,182	HYSER, CHRIS D.
	Examiner	Art Unit	
	Bea Koempel-Thomas	2196	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _23 October 2003_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-18_ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-18_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _01 April 2004_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-18 are pending in this application and presented for examination.

Objections

Abstract

2.   The abstract of the disclosure is objected to because of the following informality:

typographical or grammatical error line 14. "Prior to loading the executing the . . ." Appropriate

correction is required. See MPEP § 608.01(b).

Drawings

3.   The drawings are objected to because: Figures 1-4 should be designated by a legend such

as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected

drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

abandonment of the application. The replacement sheet(s) should be labeled "Replacement

Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the

drawing figures. If the changes are not accepted by the examiner, the applicant will be notified

and informed of any required corrective action in the next Office action. The objection to the

drawings will not be held in abeyance.

Claim Objections

4.   Claims 1-7, and 9-16 are objected to because of the following informality: "the

computer" (for example in: claim 1 lines 11 and 12; claim 2 lines 2-4; claim 3 lines 3-4; . . .

claim 9 line 10; claim 10 lines 2 and 4; . . . claim 16 lines 3-4), lacks antecedent basis. In order

to further prosecution, the examiner interpreted "the computer" in all claims as "the remote

computer" for which antecedence is provided in independent claims 1 and 9. Appropriate

correction is required.

5.   Claim 7 is objected to because of the following informalities: "the going-insecure

message" lacks antecedent basis. In order to further prosecution, the examiner interpreted claim

7 as depending from claim 6, which provides antecedent basis for the limitation. Appropriate

correction is required.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
sale in this country, more than one year prior to the date of application for patent in the United States.

7.   Claims 1-5, 9, 11-14, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated

by Arbaugh et al., U.S. Patent No. 6,185,678 B1, (hereinafter "Arbaugh").

8.   Regarding **claim 1:** Arbaugh discloses a monitor (col. 5 lines 15-19) that monitors the

security state of a remote computer system (col. 5 lines 15-23), the monitor comprising:

a computing device (Fig. 1C item 4);

a communications medium interconnecting the computing device with the remote

computer system (Fig. 1C item 24 and col. 7 lines 6-7);

a pair of data-storage media each containing a sequence of encryption keys, one data-storage medium local to the monitor (col. 5 lines 20-23), and the other data-storage medium local to the remote computer system (col. 10 lines 44-51); and

a program, running on the computing device, that exchanges with the remote computer system (col. 4 lines 49-51), over the communications medium, messages encrypted using one or more encryption keys extracted from the data-storage medium local to the computer system in order to monitor the security state of the computer system (col. 4 lines 38-40).

9.   Regarding **claim 9:** Arbaugh discloses a method for monitoring (col. 5 lines 15-19) and reporting (col. 5 lines 18-19) the security state of a remote computer system, the method comprising:

providing a monitor computing device (Fig. 1C item 4) interconnected with the remote computer system (col. 5 lines 20-23) by a communications medium (Fig. 1C item 24 and col. 7 lines 6-7);

providing a pair of data-storage media each containing a sequence of encryption keys (col. 5 lines 20-23 and col. 17 lines 36-37), one data-storage medium local to the monitor computing device (Fig. 1C item 4), and the other data-storage medium local to the remote computer system (col. 10 lines 50-51); and

receiving messages from the remote computer system over the communications medium by the monitor (col. 6 lines 14-16) and, storing an indication, by the monitor, of the security state of the computer system determined by the monitor from the received messages (col. 14 lines 43-45).

10.   Regarding **claims 2 and 11:** Arbaugh discloses that following power on or reset of the

computer system (col. 5 lines 15-17), while the computer system is in a relatively high-security

state, the computer system sends an initial-authentication message to the monitor (col. 5 lines 21-

23), encrypted with a next key extracted from the data-storage medium local to the computer

system (col. 4 lines 43-45).

11.   Regarding **claims 3 and 12:** Arbaugh discloses that the monitor receives the initial-

authentication message (col. 5 line 21), decrypts the initial-authentication message (col. 4 lines

56-57), using a next key extracted from the data-storage medium local to the monitor, and stores

an indication that the computer system is in a relatively high-security state (col. 4 line 65).

12.   Regarding **claims 4 and 13:** Arbaugh discloses that the remote computer collects security

metrics (col. 4 lines 43-45), and includes the security metrics in the initial-authentication

message (col. 4 lines 49-50).

13.   Regarding **claims 5 and 14:** Arbaugh discloses that the monitor receives the initial-

authentication message (col. 21 lines 8-9) and extracts the security metrics in order to determine

the security state of the computer system (col. 21 lines 9-12).

14.   Regarding **claim 17:** Arbaugh discloses computer instructions encoded in a computer-

readable medium (col. 7 lines 36-37).

15.   Regarding **claim 18:** Arbaugh discloses a monitor that monitors the security state of a

computer system (col. 5 lines 15-19).

Claim Rejections - 35 USC § 103

16.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived
> by the manner in which the invention was made.

17.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arbaugh in view

of Abgrall et al., U.S. Patent Publication No. 2003/0037237 A1 (hereinafter "Abgrall").

18.   Regarding **claim 8:** Arbaugh discloses that the data-storage media both contain

encryption keys (col. 5 line 22 and col. 17 lines 36-37), and each of the data-storage media are

one of: a compact disc (col. 6 line 59); a DVD disc (col. 6 line 59); an electronic memory (col. 7

lines 1-2); and a magnetic disk (col. 6 lines 58-59).

Arbaugh does not disclose that the keys are identical sequences.

Abgrall teaches keys that are identical sequences (page 4, [0044], lines 5-6).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify Arbaugh with the symmetric keys of Abgrall, capitalizing on the well known relative speed of symmetric keys to enhance the authentication system's efficiency.

19.   Claims 6-7, 10, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arbaugh in view of Byers et al., U.S. Patent No. 6,959,184 B1, (hereinafter "Byers").

20.   Regarding **claims 6 and 15:** Arbaugh discloses that while the computer system is in a relatively high-security state, prior to loading and/or executing an untrusted software program into memory (col. 10 lines 13-14), the computer system performing encryption with a current key extracted from the data-storage medium local to the computer system (col. 4 line 44).

Arbaugh does not disclose the computer system sending a going-insecure message to the monitor.

Byers teaches the computer system sending a going-insecure message to the monitor (col. 1-2, lines 67-2).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify Arbaugh with the active notification of insecurity taught by Byers in order to alert all networked nodes of a particular node's insecure state.

21.   Regarding **claims 7 and 16:** Arbaugh discloses that the monitor decrypts the initial-authentication message (col. 4 lines 56-57) using a current key extracted from the data-storage

medium local to the monitor (col. 5 line 22), and stores an indication that the computer system is

in a relatively low-security state (col. 14 lines 43-45).

Arbaugh does not disclose the monitor receiving a going-insecure message.

Byers teaches the monitor receiving a going-insecure message (col. 2 lines 4-5).

Therefore, it would have been obvious to one skilled in the art at the time of the invention

to modify Arbaugh with the active notification of insecurity taught by Byers in order to alert all

networked nodes of a particular node's insecure state.

22.   Regarding **claim 10:** Arbaugh does not disclose that the monitor receives a request for

information about the security state of the computer system, and replies with a security-status-

inquiry-response message based on a determined security state of the computer system.

Byers teaches that the monitor receives a request for information about the security state

of the computer system (col. 4 lines 41-42), and replies with a security-status-inquiry-response

message (col. 5 lines 2-3) based on a determined security state of the computer system (col. 4

lines 45-46).

Therefore, it would have been obvious to one skilled in the art at the time of the invention

to modify Arbaugh with the active notification of insecurity taught by Byers in order to alert all

networked nodes of a particular node's insecure state.

Conclusion

23.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure is:

- "Building a Foundation of Trust in the PC," Trusted Computing Platform Alliance, January 2000.

- Clark et al., "BITS: A Smartcard Protected Operating System," Communications of the ACM, November 1994, vol. 37 n. 11, pp. 66-70, 94.

- Schneier, "Applied Cryptography," John Wiley and Sons, Inc., 1996, p. 216.

- Allen et al., U.S. Patent No. 5,404,532, regarding a persistent/impervious event forwarding discriminator.

- Clark, U.S. Patent No. 5,892,902, regarding intelligent token protected system with network authentication.

- Cromer et al., U.S. Patent Publication No. 2003/0159056 A1, regarding a method and system for securing enablement access to a data security device.

- Khanna et al., U.S. Patent Publication No. 2005/0071677 A1, regarding a method to authenticate clients and hosts to provide secure network boot.

- Slater et al., U.S. Patent Publication No. 2003/0028829 A1, regarding remote monitoring of computer devices.

Please direct any inquiry concerning this communication or earlier communications from the examiner to Bea Koempel-Thomas whose telephone number is 571-270-1252. The examiner can normally be reached on Monday - Thursday & alternate Fridays; 0730 - 1700.

If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, Nabil El-Hady, on 571-272-3963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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applications is available through Private PAIR only. For more information about the PAIR

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bkt

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